

In contrast very strict control is exercised by the Thames Conservancy on vessels using the river above Teddington lock.² A boat fitted with a lavatory which discharges overboard must have it sealed by the Conservators' Officer to prevent its discharging to the river. It is an offence for those using the river to throw rubbish into the water or leave it on the banks or otherwise to pollute the water. As a corollary to these regulations, the Conservancy provides for the disposal of sewage and rubbish at various points along the river. Most of these facilities are at the Conservancy's own locks.³

There is no doubt that a uniform code for the whole country is needed, and that the standards it imposes should be as high as those of the Thames Conservancy; but legislation will be necessary. Meanwhile the various authorities having control of the waterways could make a start by improving the standards of their own craft and by providing disposal facilities. They could then exact the same improvement and the same provision of disposal facilities from firms hiring out craft on their waters. The way would then be clear for the introduction of national regulations. Where it is proposed to build marinas for yachts, local authorities should insist on the adoption of suitable regulations as a condition of their permission to construct. Portsmouth has draft regulations for its own proposed yacht marina, and these provide a useful model which could be adapted to local circumstances.¹

Probenecid and Renal Failure

When a drug has to be given continuously for many months or years it should clearly have a low degree of toxicity, particularly as other drugs may have to be given with it. During the 16 years or so that probenecid (Benemid) has been in use in Great Britain it has proved to be a relatively safe and effective uricosuric agent. At the start of treatment, particularly if it is given in full dosage from the beginning, acute attacks of gout may be precipitated. Though generally well tolerated, gastrointestinal irritation may occasionally occur. Goodman and Gilman¹ report an incidence of at least 2% rising with larger dosage, and an incidence of skin reactions at 2-4%. Sensitivity reactions occur rarely but may be severe. On the whole, toxic effects have not been a great problem and have remained relatively uncommon.

The possibility that long-term therapy might damage the kidney was seriously considered from the start. Renal colic² was reported, and in three cases nephrotic syndrome occurred but cleared up when the drug was withdrawn.³ One patient developed the nephrotic syndrome after three months on probenecid, recovered on withdrawal of the drug, and relapsed on starting it again.⁴ More recently J. T. Scott and P. K. O'Brien⁵ have reported two patients in whom oedema and proteinuria occurred during treatment with probenecid. Both were elderly men, the first uraemic, the second hypertensive. In the first patient, a severe, long-standing case of tophaceous gout with chronically raised blood urea, the syn-

drome appeared after a year on 1 g. daily of probenecid. Massive oedema developed, with albuminuria, hypercholesterolaemia, and reduction in serum albumin. The patient recovered rapidly on stopping the drug, and has remained well since 1964 on daily allopurinol. In this case the blood urea did not rise during treatment but remained raised at about the pretreatment level of 80 mg. per 100 ml. The second had had only two acute attacks of gout. After 16 months on 1 g. of probenecid daily he developed progressive anorexia, drowsiness, oedema of the limbs and trunk, heavy proteinuria, and a steadily rising blood level of urea. Treatment was continued, and he died a month later. Necropsy disclosed large pale kidneys showing widespread dilatation of cortical tubules with flattening of the lining of the epithelium. Crystals were visible in several distal convoluted and collecting tubules, and in the interstitial tissues of the medulla. The authors wisely state that there is no more than a possibility of causal association with the drug, for proteinuria and renal failure develop occasionally in patients with gout untreated by uricosuric agents. Cases such as these are apparently rare, and, when the symptoms are due to the drug, seem usually to end in recovery if treatment is stopped.

Löffler's Syndrome

In 1932 W. Löffler^{1, 2} first drew attention to a syndrome in which infiltration of the lung fields in the chest x-ray film and eosinophilia were the main features. The radiological abnormalities were variable, being unilateral or bilateral, small and discrete or large and fluffy, restricted or extensive, while the proportion of eosinophil leucocytes ranged from 6 to 66%. Characteristically both these features were transient, lasting usually only for about two weeks. From the beginning infection with *Ascaris lumbricoides* was suspected as a cause and salads during summertime the mode of infection. Since then these findings—often associated with respiratory symptoms, such as cough and wheeze—have been observed following exposure to allergens or certain drugs.

A. P. Gelpi and A. Mustafa³ have recently reported on 108 patients with this syndrome from Dhahran in Saudi Arabia. These patients, who were mainly adults, had had a transient illness in the early part of the year consisting of pyrexia, cough, wheeze, and rash. On investigation they were found to have pulmonary infiltration and considerable eosinophilia, and in some *A. lumbricoides* larvae were found in the sputum; in others ova were later found in the stools, which had been free of them during the acute illness. Gelpi and Mustafa also observed a similar illness in patients suffering from schistosomiasis in whom specific treatment had been started a few days previously.

H. French⁴ in 1909 was probably the first to describe the condition which in 1943 was named "tropical eosinophilia" by R. J. Weingarten.⁵ There are four major components of this syndrome: firstly, respiratory symptoms consisting of cough, exertional dyspnoea, and wheeze; secondly, an

¹ Goodman, L. S., and Gilman, A., *The Pharmacological Basis of Therapeutics*, 1965, 3rd ed., p. 874. New York.

² Boger, W. P., and Strickland, S. C., *Lancet*, 1954, 1, 420.

³ Ferris, T. F., Morgan, W. S., and Levitin, H., *New Engl. J. Med.*, 1961, 265, 381.

⁴ Sokol, A., Bashner, M. H., and Okun, R., *J. Amer. med. Ass.*, 1967, 199, 43.

⁵ Scott, J. T., and O'Brien, P. K., *Ann. rheum. Dis.*, 1968, 27, 249.

¹ Löffler, W., *Beitr. klin. Tuberk.*, 1932, 79, 368.

² Löffler, W., *Int. Arch. Allergy*, 1956, 8, 54.

³ Gelpi, A. P., and Mustafa, A., *Amer. J. Med.*, 1968, 44, 377.

⁴ French, H., *Guy's Hosp. Gazette*, 1909, 23, 533.

⁵ Weingarten, R. J., *Lancet*, 1943, 1, 103.

⁶ Donohugh, D. L., *New Engl. J. Med.*, 1963, 269, 1357.

⁷ Buckley, J. J. C., *E. Afr. med. J.*, 1958, 35, 493.

⁸ Beaver, P. C., Snyder, C. H., Carrera, G. M., Dent, J. H., and Lafferty, J. W., *Pediatrics*, 1952, 9, 7.

absolute eosinophil count of 4,000 per cu. mm. or more; thirdly, a positive filarial complement fixation test using *Dirofilaria immitis* as the antigen; and, lastly, a clinical response within two weeks to diethylcarbamazine.⁶ The syndrome is especially common in Indians wherever they live and particularly in the warm damp parts of the world. The evidence points to a non-human filarial infection as the cause, though possibly there is more than one aetiology.⁷

A similar clinical picture may be produced by visceral larva migrans, which was first described by P. C. Beaver and his colleagues in 1952.⁸ This is a disease of children aged between one and three years who almost invariably have a history of pica. There is prolonged general ill health, and often the liver is enlarged. The filarial complement-fixation test is negative, though the fluorescent antibody test using larvae of *Toxocara canis* as the antigen is almost always positive. There is usually no improvement with carbamazepine. The illness is probably caused by infestation with toxocara, whose natural host is the dog. Similar conditions may also be seen in the early invasive stage of schistosomal infections and in infections with *Strongyloides stercoralis*, but in neither of these are radiological changes found.

Axillo-femoral Bypass

To what length should a surgeon go to restore the circulation to a leg? This question is no longer hypothetical; the use of autogenous veins and synthetic prostheses has changed it to a literal one. Recently J. A. Mannick and D. C. Nabseth¹ have reported 19 operations for the restoration of circulation to the leg by connecting the femoral artery to the axillary artery using a long, knitted Dacron tube. The patients were too ill to withstand transabdominal aorto-iliac surgery, but had gangrene or pain at rest and so were in need of relief. Three of the bypasses thrombosed, but the remaining 16 remained patent until the death of the patient or over the period of the follow-up—in one case 22 months.

This study confirms the work of J. H. Louw² and F. W. Blaisdell and A. D. Hall³ that this operation is a relatively minor, simple procedure and also shows that valuable long-term successes can be achieved. The patient too ill to undergo abdominal surgery or with abdominal sepsis but with patent arteries below the groins is the ideal subject for this operation—for a good outflow tract will predispose towards success—but such patients are rare. Most patients who have pain at rest or gangrene have peripheral as well as aorto-iliac blocks. Mannick and Nabseth suggest that the presence of back-bleeding from the profunda femoris artery indicates an adequate outflow tract, but in practice even when technically successful aorto-iliac endarterectomies are done on patients fulfilling this criterion symptomatic relief is not invariable. The clinical problem is to decide which patients should have a long bypass graft and which should have an amputation. The vascular surgeon, quite rightly, views an amputation as a failure, but there are times when the correct amputation will get the patient walking much earlier than a distressing series of failed vascular operations. As the

techniques and scope of peripheral vascular surgery increase the problem of the choice of operation grows. It is unfortunate that objective methods of preoperative assessment to guide the surgeon's decisions are not advancing at the same speed as his technical skill.

Cardiovascular Surgery

The European Society of Cardiovascular Surgery was formed in 1951 by the leading cardiac and peripheral vascular surgeons of Europe. Its seventeenth annual congress was held recently in London under the presidency of Professor J. B. Kinmonth.

The discussions on lymphoedema showed that much could be done to relieve patients with massive swollen legs by excisional operations or by using the buried dermis flap technique, but the innovation which aroused most interest was the use of lymphovenous shunts to reduce lymphoedema. Conflicting experimental evidence was presented on the effectiveness of such anastomoses between lymph nodes and veins, and no one produced any direct evidence of persisting patent shunts in man, but J. Nielubowicz (the originator of the method) presented a series of patients with secondary lymphoedema in which more than 50% were more mobile and had less pain and the majority had a reduction in limb volume.

The discussion on homograft heart valves was concerned mainly with the long-term results and the fate of biological tissues transplanted into the cardiovascular system. Most tissues are suitable in the short term, but many fatigue early. The effect of preparation and sterilization on the structure of homologous and heterologous valves was discussed in detail. Some of the best long-term results have been obtained with homologous, sterilized, but not freeze-dried, valves, though all types are liable to stiffening and calcification as they get older. The general opinion was that the homograft and the autograft were the valves to be used and studied in the next few years.

The third symposium considered the results of surgery on the main branches of the aortic arch. Obstruction of these vessels causes a variety of cerebral ischaemic syndromes, and the results of endarterectomy or bypass operations appear to be good provided the cerebral symptoms are transient and there is no gross generalized disease. It is important that the general physician should be aware of these syndromes so that the patient can reach the surgeon before he has permanent neurological damage.

The symposium on multivalvar cardiac lesions reflected the great advances of surgical technique in this field and the amazingly good results that can be obtained by replacing three diseased valves. The mortality rate is still high but below 25% in good centres. It might be said that it is easier to transplant a new heart than repair three valves. Cardiac transplantation was not on the programme, but in view of current interest and the presence at the meeting of representatives from the Paris, Houston, and London transplant teams special arrangements were made for them to present accounts of the clinical details of their work and their opinions. This conference displayed, more than most, the inestimable value for doctors of being able to sit down and talk privately with their colleagues.

¹ Mannick, J. A., and Nabseth, D. C., *New Engl. J. Med.*, 1968, 278, 461.

² Louw, J. H., *Lancet*, 1963, 1, 1401.

³ Blaisdell, F. W., and Hall, A. D., *Surgery*, 1963, 54, 563.